60 years
est. 1961

demmeler®

THE welding table
THE ORIGINAL

#10 2021

weldingnews

Inventions by DEMMELER that reach around the world.

We have been setting innovative standards in welding production for over 30 years.

WORLD INNOVATION
THE FUTURE OF WELDING

COBOT WeldSpace 4.0

EN

60 years
est. 1961

Innovative solutions for craft and industry.

2021 – Our anniversary year
Page 2
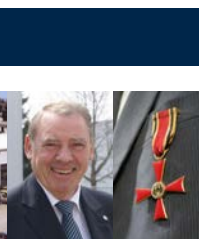
The optimum 3D welding table for every application
Page 6

LIVE

COBOT WeldSpace 4.0®

LIVE demonstration of DEMMELER COBOT WeldSpace 4.0® at the BLECHEXPO Hall 1 / Stand 1606

Blechexpo

STUTTGART
26. – 29.10.2021

FROM THE BEGINNING –

PIONEERING SPIRIT, AMBITION AND VALUE CONSCIOUSNESS.

—

2009
Manipulator series Ergonomix M® –
the specialist for ergonomic
welding work

1990
3D welding tables –
THE original
for over 30 years
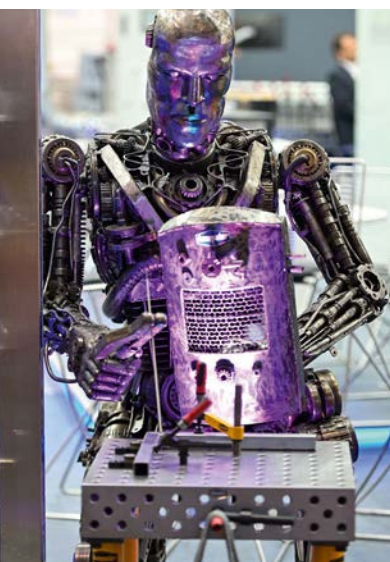
1975 Manufacture of rotary tilting tables

1990 Development of the world novelty 3D-working and welding table systems

1998 Development and production of the first tool arena on a robot basis with 300 tools

2001 Entry into the production of basic components for tool machines

2005 Development and production of the first NC-turning sliding table

2009 Development and production of the manipulator ERGONOMIX

DEMMELER | 60 years+

OUR PERFORMANCE
makes THE DIFFERENCE

2021

Inventions by DEMMELER that reach around the world –
We have been setting innovative standards in welding production for over 30 years.

In 1961, at the age of 19, Ludwig Demmeler founded the company in a garage. With ideas, courage and great commitment, the company has been able to develop very successfully up to the present day. **In 2014, Ludwig Demmeler received the Federal Cross of Merit of the Federal Republic of Germany for his entrepreneurial success and for his great honorary commitment as district craftsman.** The second generation, Johannes Demmeler, has been working in the company since 1990 and has been responsible for the success of the group of companies as managing director since 2001.

DEMMELER set the standard on the market as an important milestone as early as 1990 with the invention of the 3D clamping system and 3D welding table D28: Originally intended for the company's own production, the device system proved to be a quantum leap in metal processing and today is an international standard for trade and industry due to the many possible applications and combinations. Today, DEMMELER works with the **highest vertical range of manufacture and highly automated**, on more than 40,000 m² of factory space. The company's growth was accompanied by several **product developments and patents**, which were first produced only for their own production facilities. Put through their paces, we deliver these products to tens of thousands of customers worldwide. In addition to the **3D clamping system, these also include the turning, tilting and carousel rotary tables, as well as 3-axis manipulators, tool arenas and tool machine components**. With our unique new development, the **COBOT WeldSpace 4.0®** , we have succeeded in developing a perfect product that professionalises welding workstations, starting with small and medium-sized companies, despite the shortage of skilled workers, and thus makes them fit for the future. You can continue to rely on our **quality and innovation of the original, made by DEMMELER**, to achieve the best results in the future.

WORLD INNOVATION
THE FUTURE OF WELDING

COBOT WeldSpace 4.0

60 years+
est. 1961

2021
COBOT WeldSpace 4.0 –
the professional COBOT
welding automation solution

NEW

2010 Development and production of carousel turntables

2011 Development and production of the manipulator ROBOTIX

2012 Development and production of the PPS clamping bolt

2013 Development and production of turning units up to 25 t

2014 Development and production of rotary tables with pallet changing systems

2015 Development and production of the 3D welding table system D22

2017 Development and production of rotary tables with direct drive

2020 New development and production of the COBOT WeldSpace 4.0® – a welding cell for automated welding

LOADING BY CRANE

DWSP-CONCEPT

Perfect interplay: The control of the COBOT

Productivity³ | SPACE A1
SPACE A2
SPACE B

The new COBOT WeldSpace 4.0® welding cell from DEMMELER comes with everything you need for professional COBOT welding.

In the future, advances in digitalisation and automation will also change the processes in welding production. Particularly in the manual welding of classic sheet metal components, the new technology, welding with collaborative robots, can relieve valuable skilled workers from tiring routine and repetitive tasks. With the **COBOT WeldSpace 4.0® from DEMMELER** even small and medium-sized companies are guaranteed a **quick start** in **automated** and **professional welding production thanks to the fast commissioning and extremely simple programming**. Whether individual parts, series or small batch sizes with a large variety of parts, you save time in welding and reworking. The fully equipped welding cell with welding robot and welding technology offers unique modularity and flexibility in the smallest possible space with a possible four workspaces SPACE A, A1-A2 and SPACE B. The COBOT WeldSpace 4.0® can be operated and programmed without welding expertise.

2 x 3m² work areas

Four workspaces with perfect accessibility from all sides

WorkSpaces

SPACE A2

SPACE A1

SPACE A
Equipped with a **DEMMELER 3D welding table 2400 x 1200 mm** optionally with system D16, D22 or D28. The SPACE A workspace can optionally be divided into SPACE A1 and SPACE A2 by a partition wall.
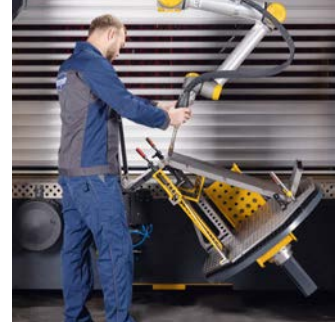
SPACE A

SPACE B

SPACE B
Depending on requirements, the **SPACE B** workspace can be **optionally** equipped with another DEMMELER 3D welding table with a maximum size of 2,000 x 1,000 mm or **with a two-axis manipulator with a payload of up to 500 kg**. This enables highly productive welding in the flat position.

demmeler®

OUR PERFORMANCE
makes THE DIFFERENCE

60+ years

Innovative welding technology and sophisticated details
Well-equipped with high-quality components and first-class equipment

Enclosure and plant

+ **Welding cell with up to four working spaces SPACE A (optional A1/A2) plus SPACE B with perfect accessibility from all sides.**
  Crane loading for set-up and workpiece change also possible through movable portal.

+ **Automatically moving protective enclosure with 2 roller shutter doors** made from aluminium armour with viewing elements made of protective welding glass.

+ **Collaborating welding robot UR10e**
  (mounted overhead). The COBOT UR10e collaborative robot arm has everything that is important for robotic welding tasks. A generous reach of 1.30 m plus handle and torch, adequate

load capacity, maintenance-free technology and sophisticated technology. The combination of the free-drive function and the touch display makes the UR10e very easy to operate and program.

+ **DEMMELER WeldSpace Programming and Operating Concept (DWSP).** Specially developed software with many functions which - together with the innovative 3-button handle - makes the creation of complex welding programs child's play. The software guides the operator intuitively through the menu and with the 3-button handle, waypoints and spot welds can be transferred directly into the program. An extensive job library that can be expanded at any time, in which parameters and characteristic curves for typical

welding applications are stored, leads to the perfect welding result.

+ **Smart Toolbox** with three lockable drawers

+ **Gas bottle holder** for up to 2 gas bottles

+ **Connection options for a central hall extraction system or a mobile welding fume extraction system** on the left or right side and twice at the top of the unit.

+ **Light-emitting diode strips** on all side corners visualise processes and machine states.

Perfectly coordinated welding processes

Welding equipment

+ **Integrated and professional high-performance welding system.** Robot welding equipment optionally from the FRONIUS or EWM brands The welding system is integrated in the table substructure to save space.

+ **Torch cleaning station with wire cutting device and injection unit.** Optimum and reliable cleaning of the gas nozzle ensures a reliable welding process and increases system availability.
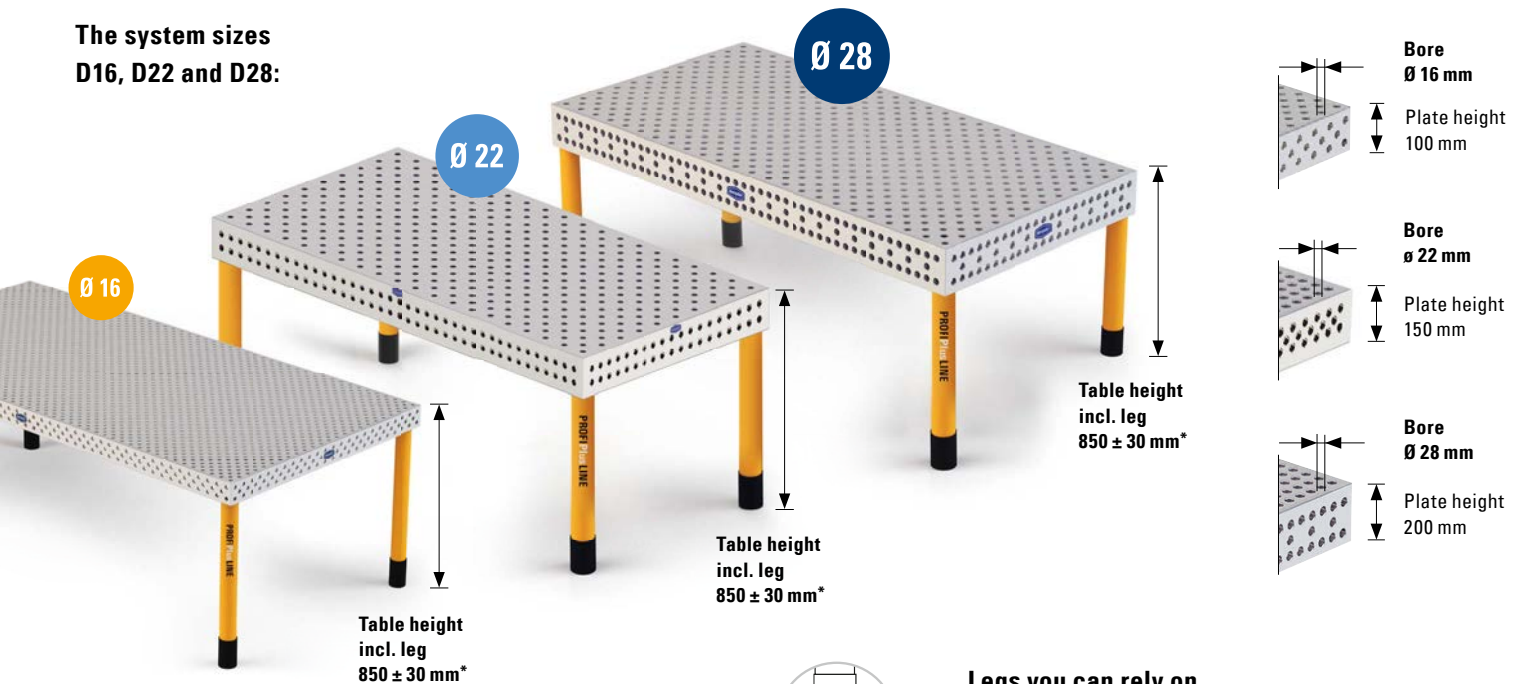
Further information and equipment options

for the DEMMELER COBOT WeldSpace 4.0® you will find on our website www.demmeler.com or simply scan the QR code.

The optimum 3D precision welding table for every application.
Top features for even more efficiency during welding.

With our 3D clamping system, you have the right solution for clamping, turning and positioning work pieces readily available. Optimum positioning of the work piece not only makes work more accurate but also much more effective. Above all, the intelligent system grids and the flexible and well thought-out clamping tool range allow you unlimited clamping possibilities. Products from the original DEMMELER 3D clamping system stand out for their extreme robustness and durability.

**The system sizes
D16, D22 and D28:**

Ø 28

Ø 22

Ø 16

**Bore
Ø 16 mm**

Plate height
100 mm

**Bore
ø 22 mm**

Plate height
150 mm

**Bore
Ø 28 mm**

Plate height
200 mm

**Table height
incl. leg
850 ± 30 mm***

**Table height
incl. leg
850 ± 30 mm***

**Table height
incl. leg
850 ± 30 mm***

**Pendulum foot
with stable
M30x2 (system D28),
M28x2 (System D22)
or
M24x2 (System D16)
threaded spindle,
finely adjustable
± 30 mm.**
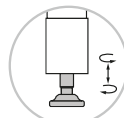
**Simple, stable
mounting**
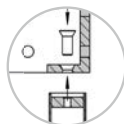
Legs you can rely on.

Efficient working guaranteed! Starting with the finely adjustable standard leg and on through the mobile heavy-duty wheel, a variable selection of table legs are available for the various table systems and permit any application. This offers you greatest possible freedom during your manufacturing operations. Thanks to the intelligent design, the legs can be fixed simply and stably. The robust construction guarantees a long service life. To this end, foot sleeves prevent pinching the welding hose and protect the threaded spindles against dirt.
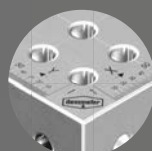
* The lengths of the standard table legs in the basic version are as follows for **D28: 650 ±30 mm, D22: 700 ±30 mm** and **D16: 750 ±30 mm**. Furthermore, standard table legs are also available in lengths for **D28: 750 ±30 mm, D22: 800 ±30 mm** and **D16: 850 ±30 mm**.

The benefits of a 3D clamping system from DEMMELER!
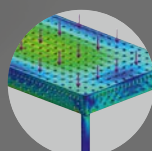
Max. load | **Precision scaling** | **Protective countersink** | **Additional bores** | **Foot sleeve**

OUR PERFORMANCE
makes THE DIFFERENCE

The system grids of the system sizes:

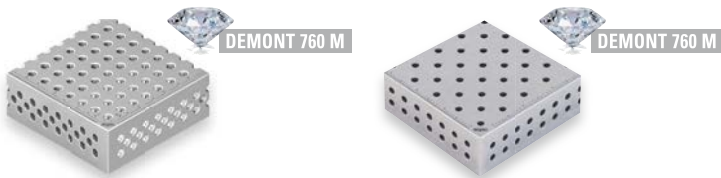### For delicate applications

DEMONT 760 M

DEMONT 760 M
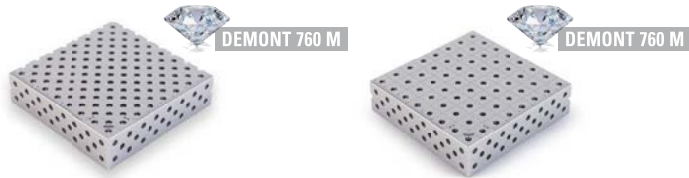
D16 PROFIPlusLINE (PL)
- Diagonal grid 50 × 50 mm
- 3-row bore pattern on the table side plates, 50 mm grid in the top, middle and bottom row

D16 PROFIEcoLINE (PE)
- Grid 50 x 50 mm
- 3-row bore pattern on the table side plates, 50 mm grid in the top, middle and bottom row

For light and medium-duty applications

DEMONT 760 M

DEMONT 760 M

D22 PROFIPremiumLINE (PP)
- Grid 50 x 50 mm
- 3-row bore pattern on the table side plates, 50 x 50 mm diagonal grid

D22 PROFIPlusLINE (PL)
- Diagonal grid 100 × 100 mm
- 2-row bore pattern on the table side plates, 50 mm grid

**DEMONT
HARDNESS
DEMONT 890 M
DEMONT 760 M**

Our 3D welding tables achieve the best surface properties with the specially optimised DEMONT hardening process. This makes them even more wear-free and durable.

For everyday, large welded constructions

DEMONT 890 M
DEMONT 760 M

DEMONT 890 M
DEMONT 760 M

DEMONT 890 M
DEMONT 760 M

new DESIGN 2021

D28 PROFIPremiumLINE (PP)
- Grid 50 x 50 mm
- 3-hole drilling pattern in the table side plates, 50 mm grid in the top and bottom rows with additional 100 mm grid in the middle

D28 PROFIPlusLINE (PL)
- Diagonal grid 100 × 100 mm
- 3-hole drilling pattern in the table side plates, 50 mm grid in the top and bottom rows with additional 100 mm grid in the middle

D28 PROFIEcoLINE (PE)
- Grid 100 x 100 mm
- 3-hole drilling pattern in the table side plates, **50 mm grid in the top and bottom rows** with additional 100 mm grid in the middle

D28 HobbyLINE (H)
- Grid 100 x 100 mm
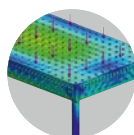- Worktop approx. 25 mm high with system bores in a 100 mm x 100 mm grid

- All our welding tables are **generously sized, super sturdy** and optimised with FEM calculations on principle.
- **Axis designation in x and y-direction**. Standard version includes precision scaling.
- **Optimum bolt and clamp insertion** with simultaneous protection of the tabletop against damage from materials, even in case of extreme strain on the system bore or when used with aluminium.
- Additional **bores in the side stanchion** for even more clamping options.
- The extremely sold design ensures **very high load-bearing capacity – 3,000 kg per leg**. The **foot sleeve prevents pinching and reduces wear at the cable-hose assembly**. This also provides a convenient way of using the ground connector. It also protects the threaded spindle against dirt and wear. Fine adjustments are possible and fixing is stable and simple.

Modular 3D precision welding tables of the
# D28 system series – with the best characteristics

For the toughest requirements

When using the 3D clamping system, the optimum flow of electricity between the electrode / filler wire and ground connector is vitally important. That is why DEMMELER optimises the material properties of its worktables and accessories and guarantees outstanding precision for optimum form fits.
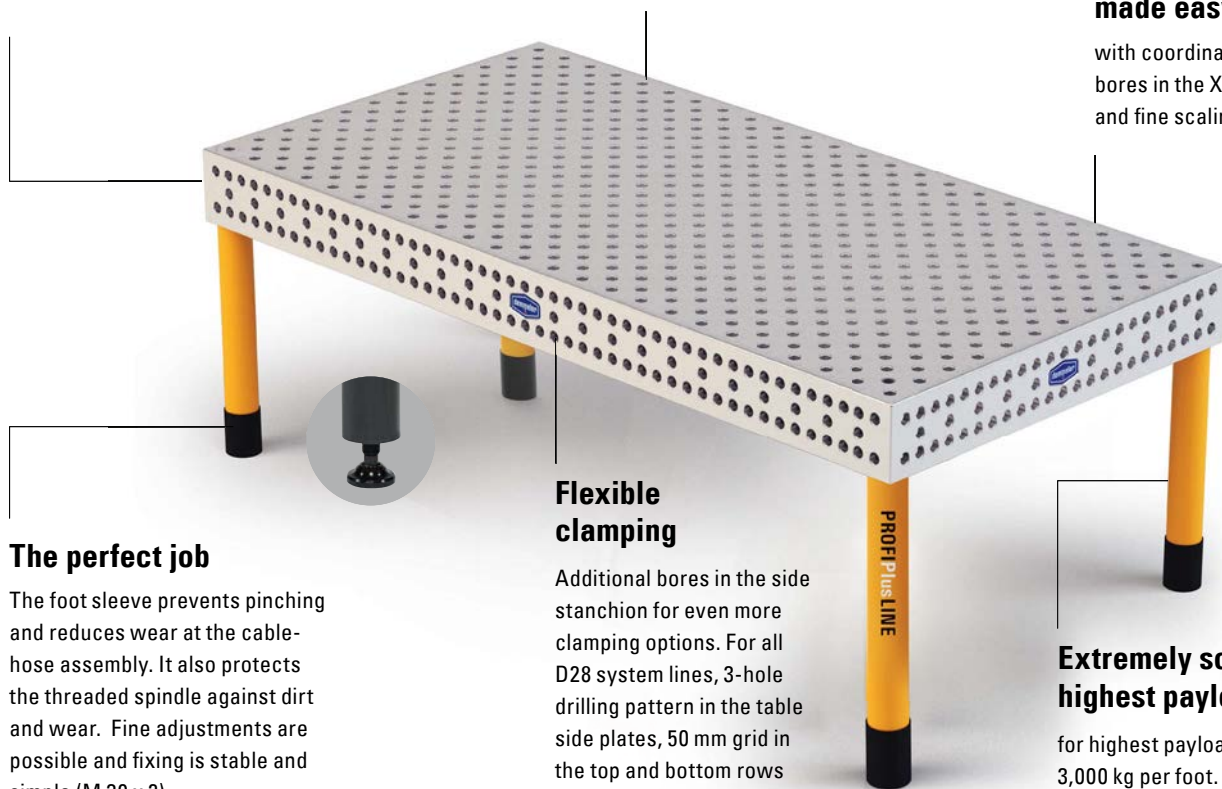
Highly resilient

All our welding tables are generously sized, super sturdy and optimised with FEM calculations on principle.
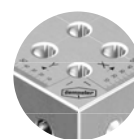
Precise work made easy

with coordinate marking of the bores in the X and Y-direction and fine scaling

The perfect job

The foot sleeve prevents pinching and reduces wear at the cable-hose assembly. It also protects the threaded spindle against dirt and wear. Fine adjustments are possible and fixing is stable and simple (M 30 x 2).

Flexible clamping

Additional bores in the side stanchion for even more clamping options. For all D28 system lines, 3-hole drilling pattern in the table side plates, 50 mm grid in the top and bottom rows with an additional 100 mm grid in the middle

Extremely solid for highest payloads

for highest payloads - 3,000 kg per foot.

PROFI Plus LINE

Different foot variants are possible for system size D28

- Standard table foot in length 650 ±30 mm (Optional: Length 750 ±30 mm)
- Telescoping leg
- Heavy-duty wheel
- Anchoring leg
- Scissor lift
- Leg for spacer block
- Shifting leg
- Holding frame

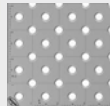Find out about the **foot type variants** and **connecting elements** online as well:

demmeler | **60 years+**

OUR PERFORMANCE
makes THE DIFFERENCE

D28

DEMMELER 3D WELDING TABLE
PROFIPlusLINE (PL) 28

Plate height
200 mm

- Worktop with D28 system bores in a **100 x 100 mm double grid**
- 3-hole drilling pattern in the table side plates, **50 mm grid in the top and bottom rows with an additional 100-mm grid in the middle**
- Table sizes optionally available in hardened version, DEMONT 760 M and DEMONT 890 M
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y-direction

TABLE SIZE L X W	SOLID TABLE WITH STANDARD LEG	HARDNESS DEMONT 760 M TABLE HARDENED DEMONT 760 M	HARDNESS DEMONT 890 M TABLE HARDENED DEMONT 890 M
1000 x 1000 mm	PL28-01001-001	PL28-01001-011	PL28-01001-021
1200 x 800 mm	PL28-11019-001	PL28-11019-011	PL28-11019-021
1500 x 1000 mm	PL28-01011-001	PL28-01011-011	PL28-01011-021
1200 x 1200 mm	PL28-01056-001	PL28-01056-011	PL28-01056-021
1500 x 1500 mm	PL28-01031-001	PL28-01031-011	PL28-01031-021
2000 x 1000 mm	**PL28-01002-001**	**PL28-01002-011**	**PL28-01002-021**
2000 x 2000 mm	PL28-01006-001	PL28-01006-011	PL28-01006-021
2400 x 1200 mm	**PL28-01003-001**	**PL28-01003-011**	**PL28-01003-021**
3000 x 1500 mm	**PL28-01004-001**	**PL28-01004-011**	**PL28-01004-021**
4000 x 2000 mm	PL28-01005-001	PL28-01005-011	PL28-01005-021
4800 x 2400 mm	PL28-11085-001	PL28-11085-011	PL28-11085-021

Special sizes available upon request!
On request the table is also available in a stainless steel version!
Errors and changes reserved. Offer is non-binding.

new DESIGN 2021

D28

DEMMELER 3D WELDING TABLE
PROFIEcoLINE (PE) 28

Plate height
200 mm

- Worktop with D28 system bores in a **100 x 100 mm grid**
- 3-hole drilling pattern in the table side plates, **50 mm grid in the top and bottom rows with additional 100 mm grid in the middle**
- Table sizes optionally available in hardened version, DEMONT 760 M and DEMONT 890 M
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y-direction

TABLE SIZE L X W	SOLID TABLE WITH STANDARD LEG	HARDNESS DEMONT 760 M TABLE HARDENED DEMONT 760 M	HARDNESS DEMONT 890 M TABLE HARDENED DEMONT 890 M
1000 x 1000 mm	PE28-01001-001	PE28-01001-011	PE28-01001-021
1200 x 800 mm	PE28-11019-001	PE28-11019-011	PE28-11019-021
1500 x 1000 mm	PE28-01011-001	PE28-01011-011	PE28-01011-021
1200 x 1200 mm	PE28-01056-001	PE28-01056-011	PE28-01056-021
1500 x 1500 mm	PE28-01031-001	PE28-01031-011	PE28-01031-021
2000 x 1000 mm	**PE28-01002-001**	**PE28-01002-011**	**PE28-01002-021**
2000 x 2000 mm	PE28-01006-001	PE28-01006-011	PE28-01006-021
2400 x 1200 mm	**PE28-01003-001**	**PE28-01003-011**	**PE28-01003-021**
3000 x 1500 mm	**PE28-01004-001**	**PE28-01004-011**	**PE28-01004-021**
4000 x 2000 mm	PE28-01005-001	PE28-01005-011	PE28-01005-021
4800 x 2400 mm	PE28-11085-001	PE28-11085-011	PE28-11085-021

PROFIPlusLINE # Well equipped from the start.
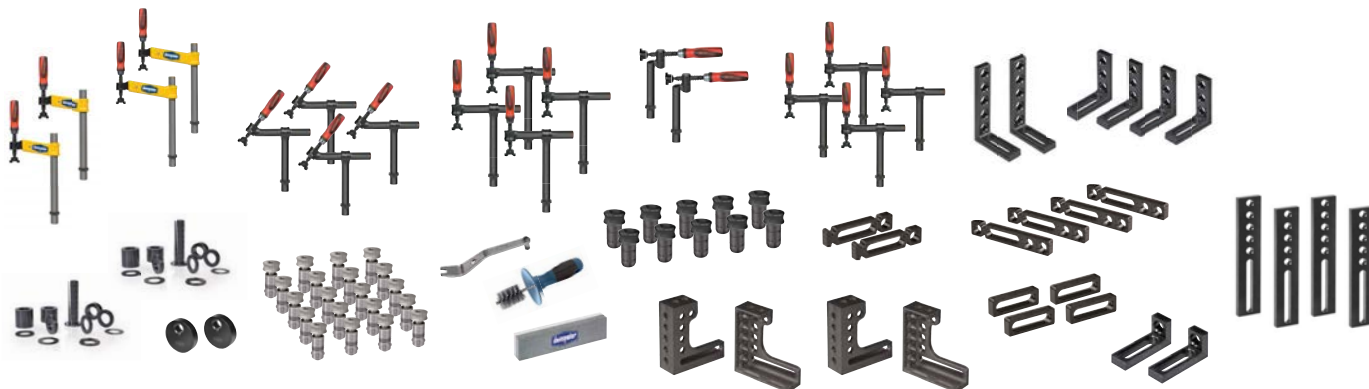# Selected clamping accessories in a set.

D28 **D28 PROFIPlusLINE Set 710**   Item no.: D28-52000-710 (44-piece)

D28 **D28 PROFIPlusLINE Set 720**   Item no.: D28-52000-720 (83-piece)

D28 **D28 PROFIPlusLINE Set 730**   Item no.: D28-52000-730 (120-piece)

Sets with PPC bolts

Sets also available with PPC bolts instead of PC bolts. Surcharge for sets with PPC bolts:
➔ **Set D710:** Item no. D28-52000-711 | **Set D720:** Item no. D28-52000-721 | **Set D730:** Item no. D28-52000-731

These tools ensure a clean work surface

D 710	D 720	D 730		Set components in detail
4	4	4	PE28-03001-000	Clamping and locating angle 175 x 175 x 50 mm
	2	4	D28-03001-005	Clamping and locating angle 175 x 75 x 50 mm
	2	1	PL28-03002-000	Clamping and locating angle right 300 x 275 mm
	2	1	PL28-03002-001	Clamping and locating angle left 300 x 275 mm
		1	PL28-03003-000	Clamping and locating angle right 600 x 375 mm
		1	PL28-03003-001	Clamping and locating angle left 600 x 375 mm
2	2	4	PE28-03008-000	Clamping and locating angle 275 x 175 x 50 mm
4	2	4	D28-05001-000	Universal stop / large 225 × 50 × 25 mm
	4	2	D28-05003-000	Stop strip L 500 – 500 × 100 × 25 mm
		2	D28-05003-001	Stop strip L 800 – 800 × 100 × 25 mm
2	4	4	D28-05009-000	Universal stop L 300 – 300 × 50 × 25 mm
		2	D28-05013-000	Locating disk Ø 75 - 25-50 mm
	2	2	D28-05013-001	Locating disk Ø 100 - 25-75 mm
		2	D28-05013-010	Angle-setting template
4	4	4	D28-05015-000	Displacement stop 150, 50× 25 mm
12	20	24	D28-06001-000	PC-bolt, short
		2	D28-06002-000	PC-bolt, long
6	10	12	D28-06009-000	Stop and positioning bolt Ø 28 mm
	2	2	D28-07001-000	Compensating swing clamp 150 mm with spindle
4	2	2	D28-07002-000	Compensating swing clamp 200 mm with spindle
	4	4	D28-07005-000	Screw clamp 180° with spindle, vertical tube 220 mm
	4	4	D28-07005-014	Screw clamp 180° with spindle, vertical tube 350 mm
		4	D28-07005-015	Screw clamp 180° with quick-action clamping cylinder
	2	4	D28-07008-000	Variable screw clamp 90° with adjusting screw
4	4	4	D28-07009-000	Variable screw clamp 45° with adjusting screw
		4	D28-07009-011	Variable screw clamp 45° with spindle, clamping tube 350 mm
	2	2	D28-09001-000	Spacer set , 11-pieces
		2	D28-09001-005	Spacer set with thread Ø 50 mm
		8	D28-09003-000	Prism holder steel, burnished Ø 58 mm
1	1	1	D28-10002-000	Round brush Ø 28 mm
	1	1	D00-10007-000	Bench stone
		1	D00-10009-000	Ground connector D16 / D22 / D28
1	1	1	D00-10016-001	Assembly lever 250 × 40 mm, AF 14

Protect and care for your welding table

With our care products you can professionally protect, clean and maintain your welding table. This not only increases the life of your welding table, but also ensures a clean and level work surface.

1 Protective spray
- Prevents the adhesion of weld spatter on the surface
- Temporary corrosion protection
- Good cleaning effect
- Without chlorinated hydrocarbons, silicone-free, non-flammable
- Biodegradable

Protective spray in 1 litre pump bottle
Item no.: D00-10005-000

Protective spray in 5-litre canister
Item no.: D00-10006-000

2 Bench stone
- To care for the system surfaces of worktables and system components

Item no.: D00-10007-000

3 Round brush D28 mm
- For cleaning the system bores
- With splash guard

Item no.: D28-10002-000

You can individually assemble or supplement your sets with the large selection of DEMMELER accessories. The DEMMELER general catalogue is available at www.demmeler.com.

PROFIEcoLINE **As starter sets or as extensions.**

Selected clamping accessories in a set.
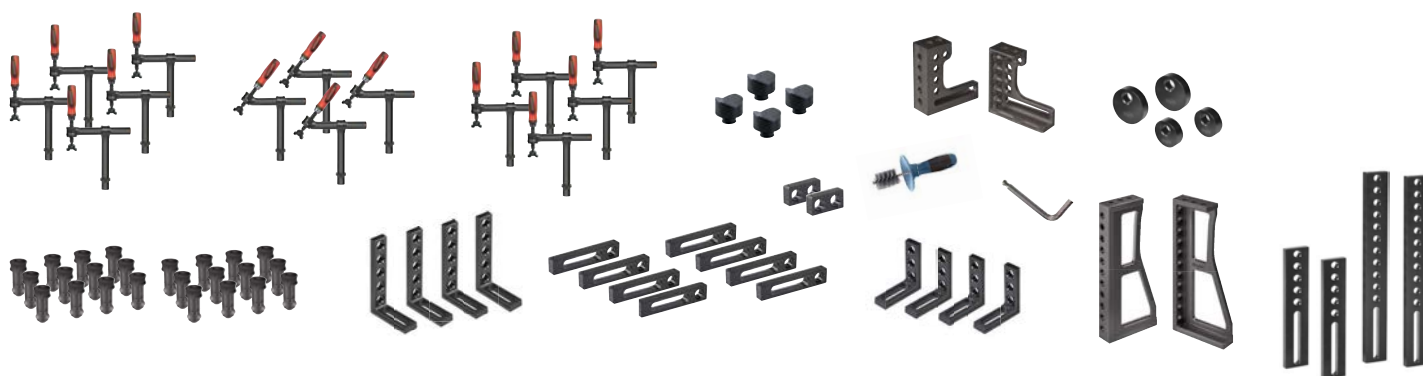

D28 **D28 PROFIEcoLINE Set 710**

Item no.: E28-52000-710 (32-piece)
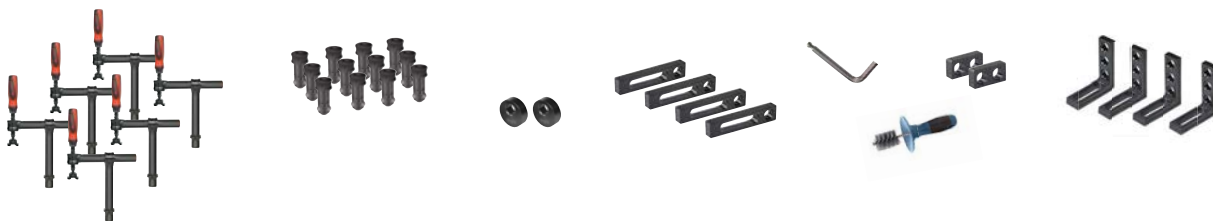
D28 **D28 PROFIEcoLINE Set 720**

Item no.: E28-52000-720 (52-piece)
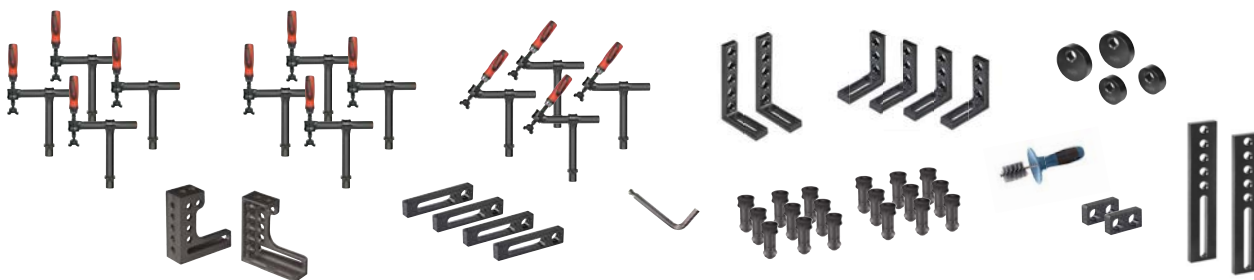
D28 **D28 PROFIEcoLINE Set 730**

Item no.: E28-52000-730 (74-piece)

Sets with PC bolts

Sets also available with PC bolts instead of EcoLINE bolts: Surcharge for sets with PC bolts:
➜ **Set D710:** Item no. E28-52000-711 | **Set E720:** Item no. E28-52000-721 | **Set E730:** Item no. E28-52000-731

Sets with PPC bolts

Sets also available with PPC bolts instead of EcoLINE bolts. Surcharge for sets with PPC bolts:
➜ **Set D710:** Item no. E28-52000-712 | **Set E720:** Item no. E28-52000-722 | **Set E730:** Item no. E28-52000-732

DEMMELER welding and clamping systems are modular and flexible. All sets and accessories can be used at all the 3D worktables within the system. What is more, you can individually assemble or supplement your sets with the large selection of DEMMELER accessories! The DEMMELER general catalogue is available at www.demmeler.com.

E 710	E 720	E 730		Set components in detail
4	4	4	PE28-03001-000	Clamping and locating angle 175 x 175 x 50 mm
	1	1	PL28-03002-000	Clamping and locating angle right 300 x 275 mm
	1	1	PL28-03002-001	Clamping and locating angle left 300 x 275 mm
		1	PE28-03003-000	PE Clamping and locating angle right 600 x 275 mm
		1	PE28-03003-001	PE Clamping and locating angle left 600 x 275 mm
	2	4	PE28-03008-000	Clamping and locating angle 275 x 175 x 50 mm
4	4	8	E28-05001-000	Eco Universal stop large 225 x 50 x 25 mm
2	2	2	E28-05002-000	Eco Universal stop large 100 x 50 x 25 mm
	2	2	D28-05003-000	Stop strip L 500 – 500 × 100 × 25 mm
		2	D28-05003-001	Stop strip L 800 – 800 × 100 × 25 mm
	2	2	E28-05013-000	Eco Locating disk Ø 75 - 25-50 mm
2	2	2	E28-05013-001	Eco Locating disk Ø 100 - 25-75 mm
12	18	24	E28-06001-000	EcoLINE bolt, short
6	8	10	D28-07005-000	Screw clamp 180° with spindle, vertical tube 220 mm
	4	4	D28-07009-000	Variable screw clamp 45° with adjusting screw
		4	D28-09003-000	V-block location, steel Ø 58 mm
1	1	1	D28-10002-000	Round brush Ø 28
1	1	1	D28-10008-005	Allen key SW8, with ball head

Reduced to the essentials, yet tremendously flexible

Right   left
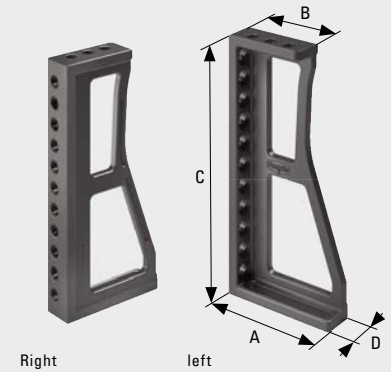
D28 **Clamping and locating angles PROFIEcoLINE, hardened casting**

- System bores in a 50 mm grid
- 3 usable stop sides for all common stopping and clamping tasks
- Hardened casting
- Cost-effective version
- Three supporting surfaces
- With precision scaling
- With face plate
- A 275 mm, B 190 mm, C 600 mm, D 80 mm
- Weight approx. 19 kg

Item no.: PE28-03003-000 (right)
Item no.: PE28-03003-001 (left)

Time is money, your tools must be ready to hand.

Simple attachment of the "smart toolbox" via system bore hole. Connecting elements are included in the scope of delivery. System components are not included in the scope of delivery.

D28 **smart toolbox for 3D welding table systems D28**

- The ideal complement to the "clever toolbox"
- Robust drawer base units made of sheet steel
- Optionally with two or three drawer elements
- Protects tools and small parts safely from dirt and welding spatter
- Max. Load capacity "smart toolbox" approx. 125 kg
- Max. Load capacity per drawer approx. 50 kg
- A 275 mm, B 190 mm, C 600 mm, D 515 mm

(1) Underbench drawer cabinet with
two drawer pull-outs
Item no.: D28-11001-032

(2) Underbench drawer cabinet with
three drawer pull-outs
Item no.: D28-11001-033

The 3D welding tables of the system series D22 –
For light and medium-duty applications

WELDING TABLES
THE ORIGINAL
FROM THE INVENTOR
— BY DEMMELER —

D22

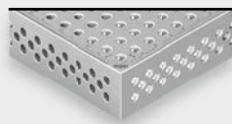### DEMMELER 3D WELDING TABLE
PROFIPremiumLINE (PP) 22

Plate height 150 mm

- Worktop with D22 system bores in a **50 × 50 mm grid**
- 3-row bore pattern on the table side plates in **50 × 50 mm diagonal grid**
- Table sizes optionally available in hardened version, DEMONT 760 M
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y-direction

SOLID		HARDNESS DEMONT 760 M
TABLE SIZE L X W	TABLE WITH STANDARD LEG	TABLE HARDENED DEMONT 760 M
1000 x 1000 mm	PP22-01001-001	PP22-01001-011
2000 x 1000 mm	PP22-01002-001	PP22-01002-011
2400 x 1200 mm	PP22-01003-001	PP22-01003-011
3000 x 1500 mm	PP22-01004-001	PP22-01004-011

Special sizes available upon request! On request the table is also available in a stainless steel version!

D22

DEMMELER 3D WELDING TABLE
PROFIPlusLINE (PL) 22
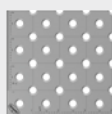
Plate height 150 mm

- Worktop with D22 system bores in a **100 × 100 mm diagonal grid**
- 2-hole drilling pattern in the table side plates with D22 system bores in **50 mm grid**
- Table sizes optionally available in hardened version, DEMONT 760 M
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y-direction

SOLID		HARDNESS DEMONT 760 M
TABLE SIZE L X W	TABLE WITH STANDARD LEG	TABLE HARDENED DEMONT 760 M
1000 x 1000 mm	PL22-01001-001	PL22-01001-011
2000 x 1000 mm	PL22-01002-001	PL22-01002-011
2400 x 1200 mm	PL22-01003-001	PL22-01003-011
3000 x 1500 mm	PL22-01004-001	PL22-01004-011

Special sizes available upon request! On request the table is also available in a stainless steel version!

Different foot variants are possible for this system size D22

- Standard table foot in length 700 ±30 mm (Optional: Length 800 ±30 mm)
- Telescoping leg (standard leg) with stable M 24 × 60 threaded spindle, finely adjustable ± 30 mm
- Heavy-duty wheel
- Anchoring leg

Errors and changes reserved.
Offer is non-binding.

OUR PERFORMANCE
makes THE DIFFERENCE

Accessory set PROFIPlusLINE (PL) 22

As starter sets or as extensions. Selected clamping accessories in a set.

D22 **D22 PROFIPlusLINE Set 720**

Item no.: D22-52000-720 (57-piece)

D22 **D22 PROFIPlusLINE Set 730**

Item no.: D22-52000-730 (77-piece)
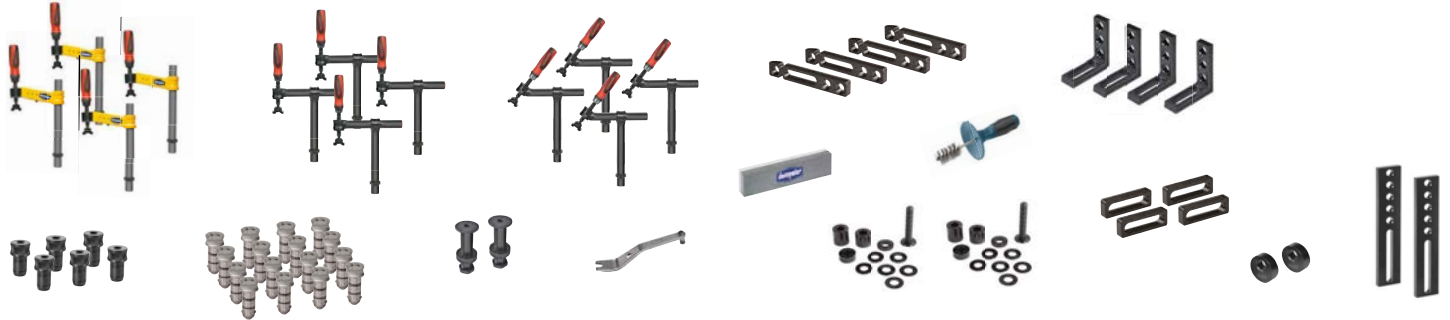
D 720	D 730		Set components in detail
	1	PE22-03003-000	PE stop and clamping bracket, right, 500 x 275 mm, hardened
	1	PE22-03003-001	PE stop and clamping bracket, left, 500 x 275 mm, hardened
	1	PE22-03004-000	PE stop and clamping bracket, right, 750 x 275 mm, hardened
	1	PE22-03004-001	PE stop and clamping bracket, left, 750 x 275 mm, hardened
16	20	E22-06025-000	EcoLINE bolt D22, short, SW 6
	4	E22-06026-000	EcoLINE bolt D22, long, SW 6
6	8	D22-06009-000	Stop and positioning bolts Ø 22 mm, 31 x 52 mm
2	2	D22-09001-005	Spacer set with thread - Ø 45x125 mm, height compensation 22-105 mm, continuous
2	2	D22-05013-000	Locating disk Ø 75 – stop dimension 25-50 mm, continuous
2	2	D22-09001-000	Spacer set, 11 pieces – Ø 50 x 125 mm, height compensation 5-100 mm
4	4	D22-05015-000	Displacement stop – 150 x 50 x 18 mm, scale on both sides
	4	D22-05001-000	Universal stop, large, 225 x 50 x 18 mm
4	4	D22-05009-000	Universal stop L 300, 300 x 50 x 18 mm
4	4	PE22-03001-000	Clamping and locating angle, 175 x 175 x 50 mm, bore/oblong hole
2	2	D22-05003-000	Stop strip L 500, 500 × 100 × 18 mm
4	4	D22-07009-000	Variable screw clamp 45° with adjusting screw, vertical tube 300 mm
4	4	D22-07005-000	Screw clamp 180° with spindle, vertical tube 300 mm
4	6	D22-07001-000	Compensating swing clamp 180° with spindle, vertical tube 300 mm
1	1	D22-10002-000	Round brush, Ø 22 mm, with protective cap
1	1	D22-10016-001	Assembly lever - 250x45 mm, AF 10
1	1	D00-10007-000	Bench stone 200x50x25 mm, 2-sided

Sets with PPC bolts

Sets also available with PPC bolts instead of EcoLINE bolts. Surcharge for sets with PPC bolts:
➔ **Set D710:** Item no. D22-52000-711 | **Set D720:** Item no. D22-52000-721 | **Set D730:** Item no. D22-52000-731

The 3D welding tables of the D16 system series -
for delicate applications

D16

DEMMELER 3D WELDING TABLE
PROFIPlusLINE (PL) 16

Plate height 100 mm

- Worktop with D16 system bores in a **50 x 50 mm double grid**
- 3-row bore pattern on the table side plates, **50 mm grid in the top, middle and bottom row**
- Table sizes optionally available in hardened version, DEMONT 760 M
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y-direction

Special sizes available upon request! On request the table is also available in a stainless steel version!
[1]Consists of 2x 1500 x 1500 x 100 mm.

TABLE SIZE L X W	SOLID TABLE WITH STANDARD LEG	HARDNESS DEMONT 760 M TABLE HARDENED DEMONT 760 M
1000 x 500 mm	PL16-01000-001	PL16-01000-011
1000 x 1000 mm	PL16-01001-001	PL16-01001-011
1200 x 800 mm	PL16-11019-001	PL16-11019-011
1200 x 1200 mm	PL16-01056-001	PL16-01056-011
1500 x 1000 mm	PL16-01017-001	PL16-01017-011
1500 x 1500 mm	PL16-01011-001	PL16-01011-011
2000 x 1000 mm	PL16-01002-001	PL16-01002-011
2400 x 1200 mm	PL16-01003-001	PL16-01003-011
3000 x 1500 mm[1]	PL16-01004-001	PL16-01004-011

D16

DEMMELER 3D WELDING TABLE
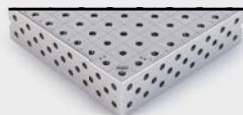## PROFIEcoLINE (PE) 16

Plate height 100 mm

- Worktop with D16 system bores in a **50 × 50 mm grid**
- 3-row bore pattern on the table side plates, **50 mm grid in the top, middle and bottom row**
- Table sizes optionally available in hardened version, DEMONT 760 M
- Precision scaling with millimetre graduation
- Coordinate marking of the bores in the X and Y-direction

Special sizes available upon request! Table can be supplied on request also available in stainless steel!
[1]Consists of 2x 1500 x 1500 x 100 mm.

TABLE SIZE L X W	SOLID TABLE WITH STANDARD LEG	HARDNESS DEMONT 760 M TABLE HARDENED DEMONT 760 M
1000 x 500 mm	PE16-01000-001	PE16-01000-011
1000 x 1000 mm	PE16-01001-001	PE16-01001-011
1200 x 800 mm	PE16-11019-001	PE16-11019-011
1200 x 1200 mm	PE16-01056-001	PE16-01056-011
1500 x 1000 mm	PE16-01017-001	PE16-01017-011
1500 x 1500 mm	PE16-01011-001	PE16-01011-011
2000 x 1000 mm	PE16-01002-001	PE16-01002-011
2400 x 1200 mm	PE16-01003-001	PE16-01003-011
3000 x 1500 mm[1]	PE16-01004-001	PE16-01004-011

Different foot variants are possible for these system sizes

- Standard table foot in length 750 ±30 mm (Optional: Length 850 ±30 mm)
- Telescopic foot with stable M 24 × 2. Threaded spindle, finely adjustable ± 30 mm
- Heavy-duty wheel
- Anchoring leg

Errors and changes reserved.
Offer is non-binding.

DEMMELER | **60 years+**

OUR PERFORMANCE
makes THE DIFFERENCE

As starter sets or as extensions. Selected clamping accessories in a set.

D16 | **D16 PROFIPlusLINE Set 155**

Item no.: D16-52000-155 (39-piece)

D 155	D 255		Set components in detail
4	4	D16-03001-000	Clamping and locating angle 90 x 90 x 25 mm
2	2	D16-03001-002	Clamping and locating angle 90 x 37.5 x 25 mm
2	4	D16-05002-000	Universal stop / small / L55
	1	D16-03002-000	Clamping and locating angle right 200 x 137.5 x 50 mm
	1	D16-03002-001	Clamping and locating angle left 200 x 137.5 x 50 mm
	4	D16-03008-000	Clamping and locating angle 140 x 90 x 25 mm
6	8	D16-05001-004	Universal stop with scale 115 x 25 x 12 mm
2	2	D16-05009-000	Universal stop / L 165
	2	D16-05015-000	Displacement stop 150 x 25 x 12 mm
10	20	D16-06001-000	PC bolt, short Ø 16
	2	D16-06002-000	PC bolt, long Ø 16
	4	D16-06009-000	Stop and positioning bolt Ø 16
4	6	D16-07001-000	Compensating swing clamp 180° with spindle
2	4	D16-07005-000	Screw clamp 180° with spindle
2	2	D16-07008-000	Variable screw clamp 90° with adjusting screw
	4	D16-07009-000	Variable screw clamp 45° with adjusting screw – vertical tube 130 mm
2	4	D16-09001-000	Spacer set, 9-pieces Ø 25 x 60 mm
	2	D16-09003-000	V-block location, steel Ø 80 mm
	8	D16-09004-000	V-block location, steel Ø 50 mm
1	1	D16-10002-000	Round brush Ø 16
1	1	D00-10007-000	Bench stone
1	1	D16-10008-000	Hexagonal wrench AF 8

**D16** | **D16 PROFIPlusLINE Set 255**

Item no.: D16-52000-255 (87-piece)

DEMMELER welding and clamping systems are modular and flexible. All sets and accessories can be used at all the 3D worktables within the system. What is more, you can individually assemble or supplement your sets with the large selection of DEMMELER accessories! The DEMMELER general catalogue is available at www.demmeler.com.

This clamping accessory should not be missing in any workshop. Tools for every clamping situation.

Infinitely adjustable via slotted hole

Precise holding of tube elements

1
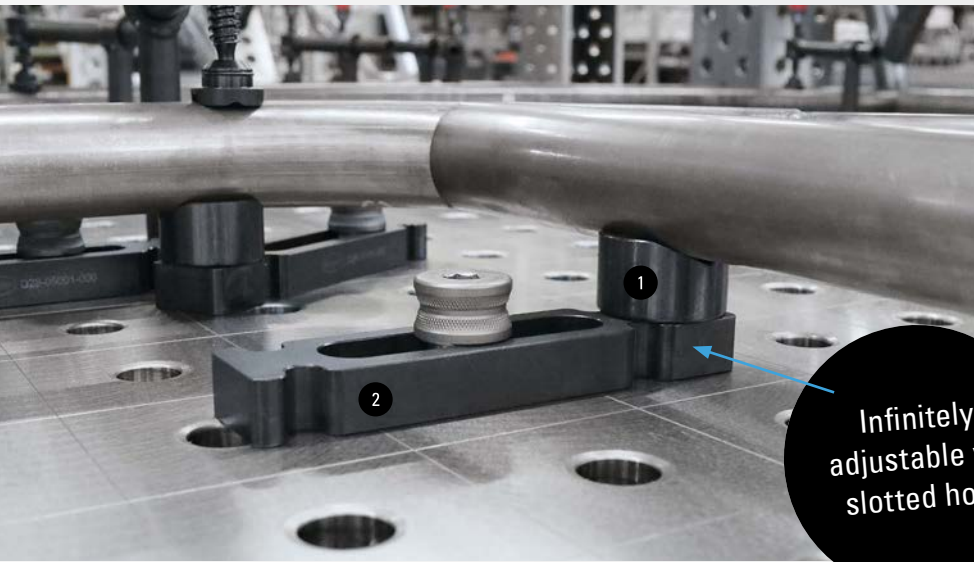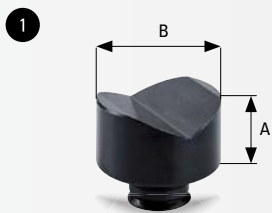
D28 Adjustment V-block D28 ø 58 mm

- Precise holding of tube elements
- Screwed in with countersunk head screw
- For tube diameter up to 70 mm
- Steel, blackened
- Prism mounts also available in stainless steel and POM
- Weight approx. 0.68 kg
- A 35 mm, ø B 58 mm
- Angle: 130°

Item no.: D28-09003-000

Can be locked and fixed on five sides in 25 mm increments

2
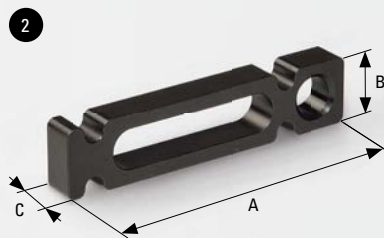
D28 Universal stop D28 large with four recesses

- Combination bore / slotted hole, infinitely adjustable via slotted hole
- With PC-bolt in table hole pattern 5-sided locking and fixation in 25 mm grid
- 360° adjustable positioning in 45° increments
- With precision scaling
- Steel, hardened
- Weight approx. 1.2 kg
- A 225 mm, B 50 mm, C 25 mm

Item no.: D28-05001-000

Optimal for use as table extension, e.g.

Spacer block D28 U-Form steel L 1000 Item no.: D28-04002-001

OUR PERFORMANCE
makes THE DIFFERENCE

ROTATION THROUGH 360°
CONTINUOUS SWIVELLING

For fast, powerful and accurately positioned clamping

Stepless swivel – rotate 360°

A

adjustable

B

C

A

max. 240 mm

B

< Adjusting ring adjustable

C

D28 Screw clamp 180° with spindle

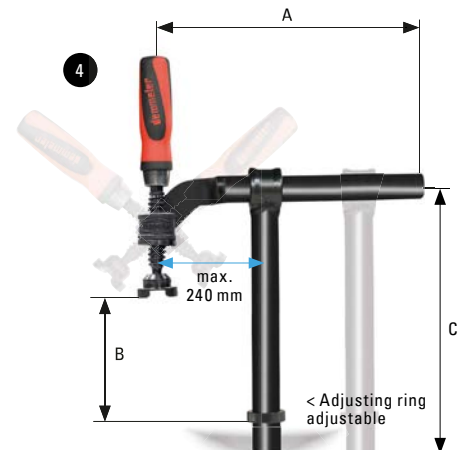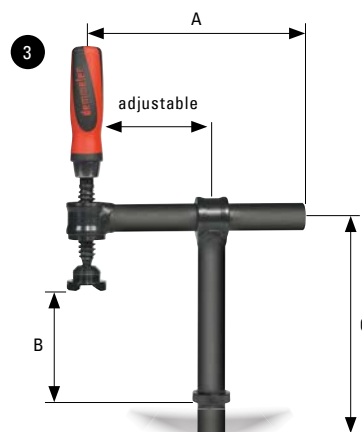- With adjustable, sturdy round tube, each tube can be used individually
- Adjustable projection
- Can be inserted through system bores, eliminating avoidable interfering edges
- Highest force transmission with sturdy round tubes
- Entire clamping mechanism is exchangeable
- Clamping pad exchangeable
- Available in two further spans 190 mm and 420 mm available
- A 220 mm, B 270 mm, C 350 mm

Span max. 270 mm
Item no.: D28-07005-014

D28 Performance screw clamp with spindle

- Universally usable for the horizontal/vertical and oblique clamping of work pieces
- Continuously swivelling and 360° rotating
- Adjustment range of clamping spindle over 130 mm by rotating the retaining tube without having to move the clamp (previous version: 68 mm)
- Can be folded together flat (less storage space required)
- With three exchangeable actuation modes (spindle, short boring spindle and quick-action clamping cylinder)
- A 240 mm, B 180 mm, C 270 mm
- Weight approx. 2.2 kg
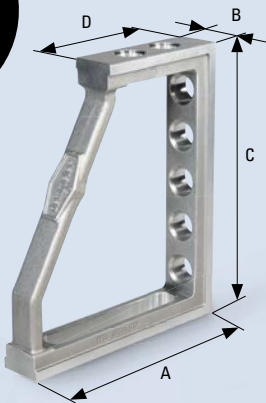
Item no.: D28-07009-033

Suitable system accessories, such as actuation types or taper fitting and V-block locations for screw clamps, can be found online at www.demmeler.com.

Work can be so easy.
Tools with multiple application possibilities.

Optimally clamped with PPC bolt

Right

left
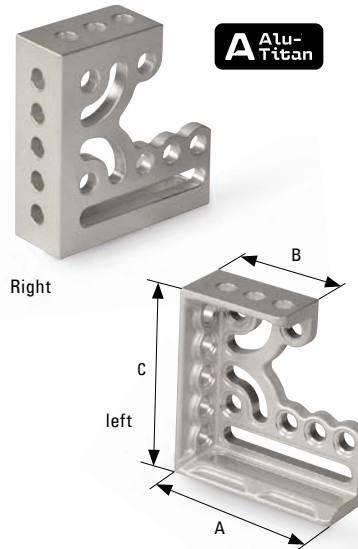
D28 **Clamping and locating angle D28 PP 300, aluminium-titanium**

- Stiffeners in the corners with 90° system groove in kidney shape
- Hole grid at 50 mm intervals, also on all angle sides
- Extended face plate with additional bore
- 4 stop faces / usable surfaces
- 2x system groove 200 mm
- 2x system groove in 90° kidney shape
- With precision scaling
- Anodised
- Weight: 5 kg
- A 275 mm, B 180 mm, C 300 mm

Item no.: P28-03002-002 (right)
Item no.: P28-03002-003 (left)

Flexible stop –
Foot plate can be moved
in 50 mm increments

D28
D22 **Clamping and locating angle PL 300, aluminium-titanium**

- Extended face plate with two bores in the face plate
- Extended mounting plate with oblong hole 150 – therefore moveable on 50 mm worktop grid
- A 275 mm, B 190 mm, C 600 mm, D 150 mm
- Weight: 1.7 kg (D22), 1.8 kg (D28)

D22: Item no.:
PP22-03001-017

D28: Item no.:
PP28-03001-017

Find out about the entire range of stops and clamping brackets online:

OUR PERFORMANCE
makes THE DIFFERENCE

Order with system.
With these accessory trolleys, welding table workplaces are always well organised.

D28
D22

D16

Mobile accessory trolleys in any system size

D28 D22 D16 Accessory cart

- Establishes a tidy and orderly workstation
- Faster access to the system components
- Large angles are safely and conveniently stored inside the cart
- Fast to transport thanks to four sturdy 360° swivelling casters, one of them locking.
- System components not included in the scope of delivery.
- D28: A 1,000 mm, B 650 mm, C 1,010 mm, weight: approx. 60 kg
  D22: A 800 mm, B 503 mm, C 1,020 mm, weight: approx. 55 kg
  D16: A 600 mm, B 450 mm, C 870 mm, weight: approx. 35 kg

Accessory cart D28:
Item no.: D28-11001-000
Accessory cart D22:
Item no.: D22-11001-000
Accessory cart D16:
Item no.: D16-11001-002

D16 Tool trolley D16

- Four closed drawers protect the contents against from contamination and provide quick access to the system parts
- Locking
- Mobile on four casters, two of them swivelling and locking
- System components not included in the scope of delivery
- A 740 mm, B 560 mm, C 970 mm

Item no.: D16-11001-000

C

B

A

D16

Further table accessories in all system sizes can be found online.

Our practical drawer base cabinets "clever toolbox" for the systems D28 and D22 offer a lot of storage space and protect your clamping accessories from dirt and welding spatter.

D28 clever toolbox D28
Item no.: D28-11001-015

Optionally orderable:

(1) Universal box D28
Item no.: D28-11001-017

(2) Bolt magazine D28
Item no.: D28-11001-016

Plug-in bolt bottom D28
Item no.: D28-11001-018

D22 clever toolbox D28
Item no.: D22-11001-015

Optionally orderable:
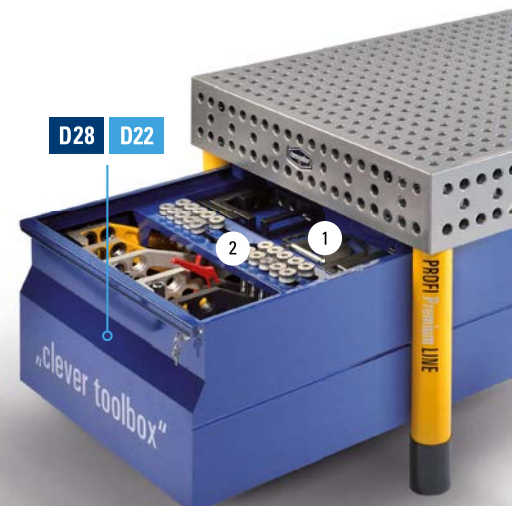
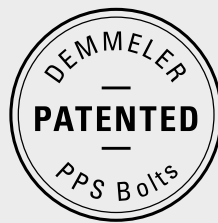(1) Universal box D22
Item no.: D22-11001-017

(2) Bolt magazine D22
Item no.: D22-11001-016

Plug-in bolt bottom D22
Item no.: D22-11001-018

D28 D22

The **clever toolbox** can be mounted on all four sides and has a load capacity of up to 170 kg.
(10 locking pins, bottom are included in the scope of delivery.)

Material-gentle clamping thanks to patented cone contact pressure system

PATENTED
DEMMELER — PPS Bolts

**European patent No. 2569548**

Original DEMMELER PPC clamping bolt
Self-centring, force-locked and low-wear clamping

The DEMMELER PPC bolt's cone clamping system makes the bearing surface 100 times larger. This results in much higher contact pressure, therefore securing work pieces more reliably. Even force distribution also reduces bore hole wear compared to conventional bolts.

PPC bolt

ECO-bolt
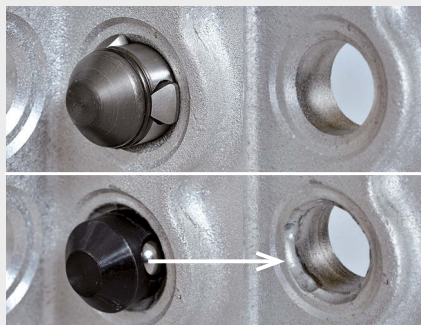
Comparison of clamping pins and the polygon bolt from DEMMELER
Using the PPC bolt prevents serious damage to the bores that can be caused by clamping pins, for example with aluminium-titanium blocks.

AF 14

Tensile force

Shear force

Clamping range

D28 THE ORIGINAL – PATENTED – PPC bolt D28 short

• Highest clamping force with large stroke
• Polygon-shaped expansion elements reduce the wing loading
• Very quick to clamp and unclamp
• Force-locking through full-area contact
• Easy on materials
• Extremely robust
• Low susceptibility to dirt
• Limit clamping range 41-47

Item no.: D28-06025-000

DEMONT 760 M
BLACK EDITION

D28 Clamping and locating angle PE large bore / oblong hole

• Combination system bores / oblong hole for numerous clamping possibilities
• Precision scaling on both sides
• Two full angle surfaces – therefore can be used from both sides
• Compatible with all clamping and locating angles so that the oblong hole can be used to form a height-adjustable support
• Hardened casting
• A 275 mm, B 190 mm, C 600 mm, D 25 mm
• Weight approx. 2.4 kg

Item no.: PE28-03008-000

OUR PERFORMANCE
makes THE DIFFERENCE

Lifting | turning | swivelling

180°

MANIPULATOR ERGONOMIX M®

Unique Swivelling range up to 180 degrees.

NEW: FACELIFT 2021

Limited space. Unlimited possibilities.

Outstanding flexibility during welding or assembly work thanks to swivel range of up to 180° as standard.

Using the teach controller, it is possible to store multiple different work piece programs and call them when needed.

Features of the Ergonomix M® and optimal expansion possibilities

❶ Controller
Series equipment
- with pendant control panel ❷
- with foot switch ❸

④ Teach controller
M2000: Item no. Z00-01001-024
M4000: Item no. Z00-01001-025

⑤ Laser scanner
Item no. Z00-01010-001

⑥ Rotary feedthroughs
for querying the state of fixtures, electrical:
Item no. Z00-01004-005
for pneumatic clamping fixtures:
Item no. Z00-01004-008
for hydraulic clamping fixtures:
Item no. Z00-01004-009

⑦ Ground connector
max. 400 A at 60% ED:
Item no. Z00-01000-002
max. 700 A at 60% ED:
Item no. Z00-01000-009

Basic model Ergonomix M®

Description		M 2000 / V1250	M 2000 / V2500	M 2500 / 19000	M 4000
Bearing load (w/o worktop)	[kg]	2000	2000	2500	4000
D=max. interference area at 180° (w/o worktop) At height	[mm] [mm]	1000 650	1000 650	1000 650	1500 520
Max. rotation speed	[RPM]	1.4	1.4	1.4	2
Min. rotation speed	[RPM]	0.75	0.2	0.2	0.2
Torque	[Nm]	1250	2500	2500	5000
Tilt angle	[°]	180	180	180	180
Moment of tilt	**[Nm]**	**8000**	**8000**	**19000**	**32000**
A=min. height (w/o worktop)	[mm]	490	490	490	750
B=max. Height at 180° swivel angle	[mm]	970	970	970	983
C=max. Height at 90° swivel angle	[mm]	1480	1480	1480	1680
Pendant control panel		✓	✓	✓	✓
10-speed control		✓	✓	✓	✓
Motors / rotary axis		1	2	2	2
Item no.		M02-02000-006	M02-02000-007	M02-02000-047	M04-04000-000

Specifications without worktop. Other equipment details on request.

Errors and changes reserved. Offer is non-binding. Prices net ex-work plus VAT.

● Series equipment   ○ Special equipment

The entire variety of the DEMMELER product portfolio – to click and browse ...

NEW

3D-SCHWEISSTISCHSYSTEME
Modulares System mit System

MANIPULATOREN
Werkstücke bis 40.000 kg heben, drehen, kippen

DEMMELER COBOT WELDSPACE 4.0
Automatisiertes Schweißen im Pendelbetrieb

KARUSSELL- UND DREHVERSCHIEBETISCHE
Exakt positionieren und drehen

—
Original 3D clamping systems and welding tables

—
Manipulators

—
COBOT WeldSpace 4.0

—
NC rotary tables

Website and main catalogue available in 14 languages

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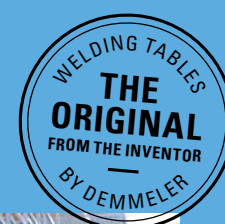## Convenient online ordering: in the DEMMELER webshop
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